

# Training in Pohnpei, Federated States of Micronesia

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**P**rotection of archeological and historic sites poses significant problems for decision makers who must decide what we most want to conserve from the past. Such sites and materials reflect cultural forms as they existed in the distant past and as they have been shaped historically, and so they continue to be central today to maintenance and reconfiguration of cultural identity. This is especially true in the newly independent and rapidly changing countries within the former U.S. Trust Territory of the Pacific Islands, Micronesia. While decisions about what to preserve must lie with islanders and their governments, continuing international cooperation in building the technical expertise for site recognition, conservation, and development is essential for successful long-term management. Pacific Island governments are becoming more and more dependent on their own staffs to do cultural resource management and local historic preservation programs are being expected to carry out basic survey and assessment as well as to manage the sites. Office staffs are overburdened and improved access to necessary information is needed to improve cultural resource management at a time when development and other land modifications are increasing.

Pohnpei State is one of four states within the Federated States of Micronesia, a new nation whose islands extend across nearly 3,200 km (2,000 miles) of the western Pacific Ocean. Pohnpei State, consisting of over 160 individual islands and reefs comprising six main islands, includes one large volcanic high island of approximately 310 sq. kilometers (133 sq. miles) and several low coral atolls. The tropical climate and natural environment pose special problems for documenting and conserving sites, which include stone ruins such as house foundations, tombs, agricultural features, and ritual centers such as the massive complex of Nan Madol, as well as historic sites from the colonial period, and cultural landmarks. The Historic Preservation Fund

administered by the U.S. National Park Service has provided funding for historic and cultural preservation on Pohnpei since the late 1970s.

## *Pohnpei State Site Data*

Archeological site information on the islands forming Pohnpei State has been collected systematically only within the last 25 years. Still, although most of the land is still unsurveyed, the total site inventory is approximately 1,000 sites at present (many of which are comprised of dozens of major architectural features). The first systematic effort to do intensive survey on Pohnpei in the late 1970s concentrated on sample land units on the main island;<sup>1</sup> as well, site recording was accomplished on And, an atoll near Pohnpei,<sup>2</sup> and detailed surveys have been conducted on Kapingamarangi, but not on the other Pohnpei State atolls. Intensive field studies have been done since the 1980s by William Ayres at Nan Madol, which represents an internationally recognized element of the world's cultural heritage; it is listed as a U.S. National Historic Landmark.<sup>3</sup> Other traditional sites, historic sites from the colonial period, and landmarks and cultural landscapes are still viewed as fundamentally important by the island residents. The efforts of Rufino Mauricio, a Pohnpeian, now with a Ph.D. in archeology and the National Historic Preservation Officer for the Federated States of Micronesia, were critical to much of this early work.

Archeological and ethnographic studies conducted in the Salapwuk area of Kiti Municipality were undertaken in 1989-90 by the University of Oregon and the Pohnpei Historic Preservation Office staff as part of the Micronesian Resources Survey to provide a case study of appropriate methods and procedures for cultural resource inventory, assessment, and conservation. Specifics for the current training program come from the earlier surveys and the guidelines developed from the Salapwuk project by Ayres and Mauricio.<sup>4</sup>

### ***Training Projects***

Recent University of Oregon archeological training projects on Pohnpei and Palau thus far have included field survey, site recognition and definition, various levels of mapping, site description formats, and database development. The training projects conducted on Pohnpei in 1998 and 1999 concentrated on a residential complex at Nanimwinsapw, Sokehs, a traditionally important area on the island's north coast. This extensive site has elaborate stone features such as paved walkways, enclosures, house foundations, and ritual architecture extending from the shoreline well into the interior. In addition to dozens of prehistoric features, the area also includes a German colonial period road dating to the early-20th century and extensive Japanese military fortifications dating to the 1940s. Features were described and mapped in an effort to provide basic documentation before the site is further damaged.

Other training projects included detailed GPS point survey locations and mapping in the well-known Nan Madol site on Pohnpei's east coast. As well, we developed a cooperative plan to create a comprehensive site record database. Thus, the interaction involved both collaborative archeological research and cultural resource management.

### ***Site Management Systems***

Increased applications of new technologies such as Global Positioning Systems (GPS) and Geographical Information Systems (GIS) have expanded the nature of archeological investigation in recent years and this has raised debate about the best means to manage locational data. A basic issue is whether the spatial locational aspects of site management are so fundamental that GIS should be used, or that instead a true Relational Database Management System (RDBMS) is required as the basic technical system.<sup>5</sup> A computer-based system introduced as part of the Micronesian Resources Survey to the islands in 1989 featured specially created software for site management; however, this was not effective because of complex user demands and lack of continuity and training. In much of Micronesia, GIS land management is being developed just now by natural resources departments and major issues are yet to be resolved that will affect how different kinds of land use information will be integrated. For example, in Pohnpei's case, varied environmental zones representing mangrove swamps, dense historic coastal settlement, and

upland secondary forest, among others, pose issues for recording sites using either GPS or traditional surveying methods. However, GPS is in regular use now on Pohnpei and it will be employed even more in the future for site recording.

Another complication for the site database is the varying nature of the descriptive data available for sites after locations have been established. Much of this information for Pohnpei exists in differing formats and levels of detail and, for example, many sites are known only as an oral history reference while many others have UTM coordinates, ecological zone and other environmental data tied to them, and have voluminous descriptive detail, especially as at the Nan Madol site. We argue that Pohnpei must address these issues as there is no functional, comprehensive site inventory database at present.

### ***Recommendations***

- The Pohnpei State Historic Preservation Office needs to update its record system for archeological and traditional sites and improve access to site distributional data. The authors are working together in an effort to achieve this and to create a hard copy and computer-based archeological and historic site database. It would be integrated with land use management systems, including Arc View and CAD programs, employed by the Division of Land's surveying and cartographic division. Three basic levels of access to site records are proposed through which office staff could sort and analyze historic sites, landmarks and landscape features, and land-use information.
- A relational database management system should be set up for historic preservation management, perhaps with Internet access to a central database for all four states of the Federated States of Micronesia.

The historic preservation staff of Pohnpei State, in cooperation with the historic preservation office of the national government—as the responsible government agencies—will need to continue to refine and update the site records system. A major function will be adding new site data as these become available from continuing archeological field projects and on-going cultural resource management work.

The site documents available for Pohnpei represent an extremely valuable cultural resource asset. The sites represent a wide range of types and the stone ruins are some of the most remarkable in the entire Pacific area. To influence land-

use planning and to meet the needs of long-term management, a readily accessible management system is increasingly critical. Thus, three main arenas for attention include developing the technical skills of the HPO staff; improving the site inventory system; and using the research and site documentation results provided by outside researchers to help achieve office goals.

Among the many known sites in Pohnpei State, few have been assessed relative to U.S. National Register status, or something equivalent for Pohnpei, and having a way of keeping track of and comparing sites for assessment purposes is essential. Beyond the inherent value of the hundreds of known archeological and historic sites in Pohnpei State, there are thousands more yet to be recorded. Much progress in establishing cultural resource management in Micronesia has been made through substantial commitments over the last 30 years in funding and personnel training; however, much remains to be done. Clear assessment and coordination of training needs and an increasingly active historic preservation program in Pohnpei State will be required.

### Notes

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### Acknowledgements

The authors wish to thank David Panuelo, Head of Lands and Natural Resources for Pohnpei State and Condios Cornelios, Head of the Land Surveying Office, as both have been instrumental in providing resources for surveying and map management. Our thanks go as well to: Retty Lawrence, HPO site recorder and oral historian; Lisa Andon and Lerleen David, Maritime Museum staff; Rosenda Etse, HPO staff; Derelisa Ardos, College of Micronesia student trainee; and Raymond Ladore independent field archeologist. Dr. Rufino Mauricio, Chief Archaeologist and Historic Preservation Officer, for the Federated States of Micronesia, is the FSM liaison.